U.S. Department of Homeland Security

SCIENCE AND TECHNOLOGY DIRECTORATE

2022 Biometric Technology Rally Post-Conditional Acceptance Webinar

Arun Vemury

Director

Biometric & Identity Technology Center

John Howard

Lead Data Scientist

The Maryland Test Facility

Yevgeniy Sirotin

Principal Investigator

The Maryland Test Facility

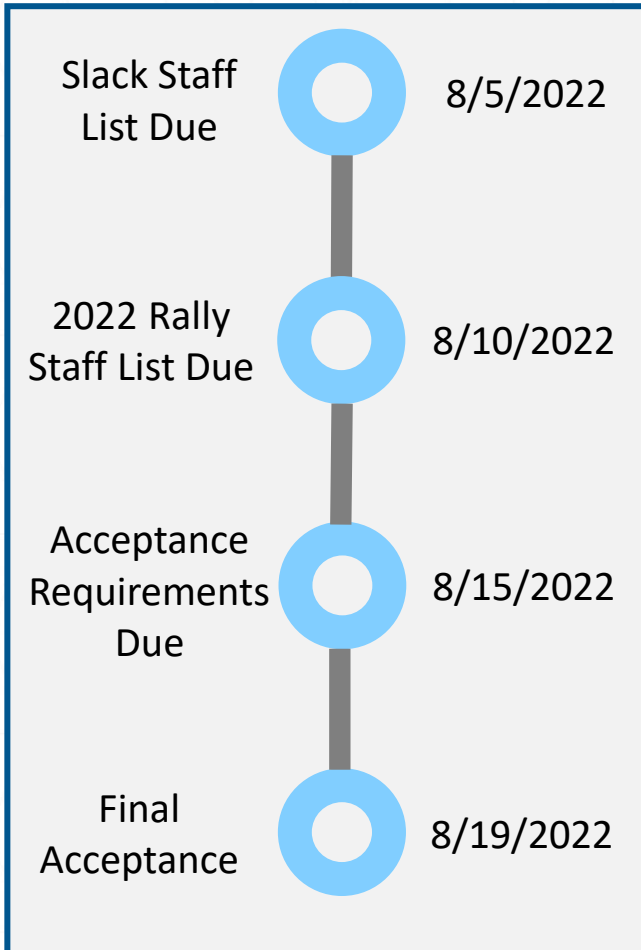August 2, 2022

Science and Technology

Outline

- Rally Timeline
- Communication Channels and POCs
- Before Scenario Testing
  - Final Acceptance Requirements
    - Staff
    - CRADA
    - System Safety
    - API
  - System Delivery
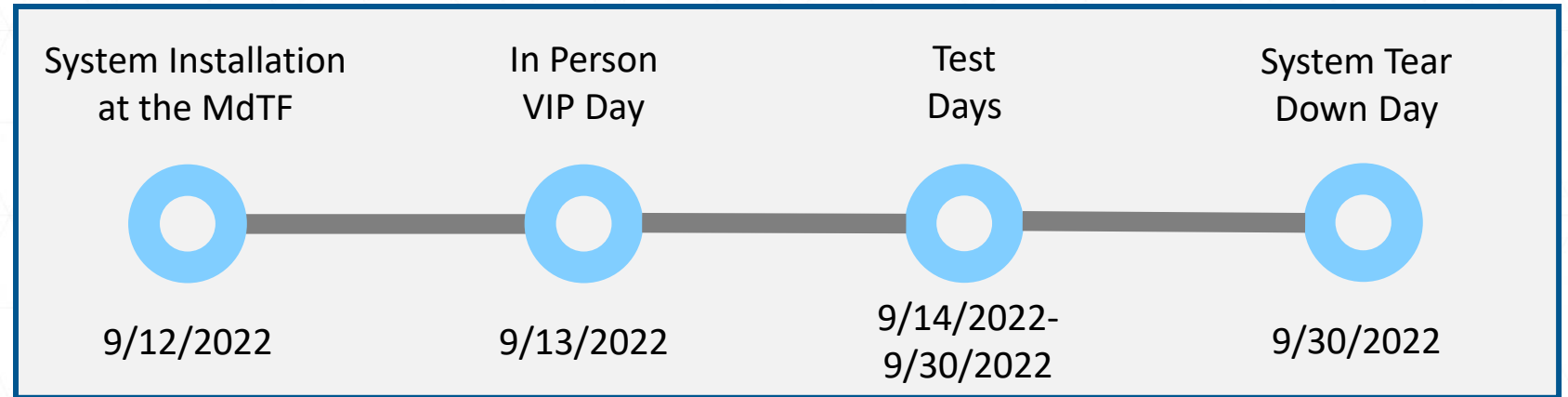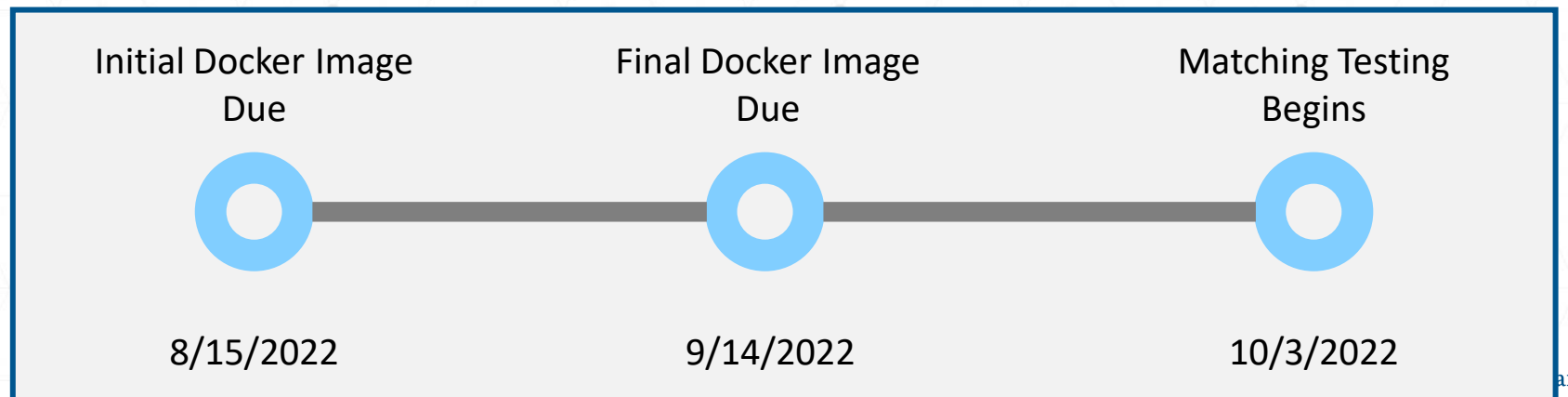- During Scenario Testing
- After Scenario Testing

2022 Biometric Technology Rally at MdTF

Timeline

Before Testing

Slack Staff List Due	○	8/5/2022
2022 Rally Staff List Due	○	8/10/2022
Acceptance Requirements Due	○	8/15/2022
Final Acceptance	○	8/19/2022

Acquisition System Test Logistics

System Installation at the MdTF	In Person VIP Day	Test Days	System Tear Down Day
○	○	○	○
9/12/2022	9/13/2022	9/14/2022-9/30/2022	9/30/2022

Matching System Test Logistics

Initial Docker Image Due	Final Docker Image Due	Matching Testing Begins
○	○	○
8/15/2022	9/14/2022	10/3/2022

Communication Channels and POCs

Resources & Where to Ask Questions

- This is the **last** scheduled webinar prior to the 2022 Rally

- All legal and logistics questions should be directed to peoplescreening@hq.dhs.gov

- All technical communication pertaining to the Rally will be handled via Slack (chatroom):
  - API Integration
  - Rally Metrics
  - Rally Schedule

- A checklist of conditional to final acceptance requirements, and these slides, are available on http://mdtf.org/Rally2022

Slack Channel Access

- Getting Slack access:
  - Identify up to three (3) individuals from your company to serve as **Slack Channel Staff** to communicate with the MdTF Technical team
  - Technical POC should send the list to rally@mdtf.org with the subject line of **"<Company Name> 2022 Rally Slack Channel Staff"**
    - **To ensure timely access, this list is due by** **August 5, 2022**

  - Each **Slack Channel Staff** must email rally@mdtf.org with the subject line of **"<Company Name> 2022 Rally Matching Account Request" or "<Company Name> 2022 Rally Acquisition Account Request"** as appropriate
    - Matching system slack channel staff will also have access to an upload portal for your company's matching system

- Each Slack Channel Staff must contact rally@mdtf.org to request access to a Slack channel where issues with API integration can be communicated
  - Originating e-mail must be listed in a prior e-mail from the technical POC

  - Use the subject line: **"<Company Name> 2022 Rally Acquisition Account Request"**

Science and Technology

System Provider Staff List- Matching

- Email a list of staff members who will have **ANY** association to the 2022 Rally to rally@mdtf.org and peoplescreening@hq.dhs.gov with the subject line of **"<Company Name> 2022 Rally Staff"**

- Identify people as one (or more) of the following categories
  - Slack channel and matching system upload staff
  - People that will be involved in data analysis of data provided from the 2022 Rally
- Different categories have different requirements to participate in the 2022 Rally

- List due by **August 10, 2022**

Science and Technology

System Provider Staff List- Acquisition

- Acquisition system providers also need to email a list of staff members who will have **ANY** association to the 2022 Rally to rally@mdtf.org and peoplescreening@hq.dhs.gov with the subject line of **"<Company Name> 2022 Rally Staff"**

- The same categories are needed for acquisition and matching. Acquisition system providers additionally need to list:
    - Slack channel staff (acquisition system providers will not have access to the matching system upload)
    - People that will come to the MdTF for the 2022 Rally data collection
    - People that will come to the MdTF only for the 2022 Rally VIP day
        - Include citizenship information for people that will come to the MdTF

- List due by **August 10, 2022**

Science and Technology

Before Scenario Testing

System Provider Data Analysis Staff

- **ALL** representatives involved with 2022 Rally data must complete ethics training in data sharing practices
    - This includes anyone visiting the test facility during data collection, or handling data post-collection
    - This applies to both matching system providers and acquisition system providers

- Ethics and Best Practices in Sharing Individual-Level Research Training (by Global Health Training Centre)
    - https://globalhealthtrainingcentre.tghn.org/ethics-and-best-practices-sharing-individual-level-data-clinical-and-public-health-research/
    - Must receive passing score (80%), and download certificate from your profile on their site

- Certificate is good for two years- if your staff have a certificate expiring **September 30, 2023** or later, then provide a copy of that certificate

- Email certificates to rally@mdtf.org and peoplescreening@hq.dhs.gov with the subject line of "Ethical Data Sharing Training – <Company Name>"

- All certificates must be received by **August 15, 2022**

Science and Technology

System Provider Data Collection Staff

- Acquisition system providers will be allowed to bring a ***limited number of representatives*** to the facility at a given time (see below). This is due to limited physical space at the facility
  - **Installation: Two (2)** representatives will be allowed at the facility at any given time
  - **VIP Day: Three (3)** representatives will be allowed at the facility at any given time
  - **Data Collection: Two (2)** representatives will be allowed at the facility or off-site conference room at any given time

- By **August 10, 2022**, you must provide the following three things to rally@mdtf.org and peoplescreening@hq.dhs.gov for **each** representative who will visit the MdTF during data collection
  - Name, Citizenship, Contact Information (email, phone)
    - By **August 15, 2022**, foreign nationals will need to submit an additional form to peoplescreening@hq.dhs.gov. Peoplescreening will email the form to each company's business POC after we have been told that a foreign national will be coming

- Representatives that will only be present for VIP day or installation day, and will not be involved in data analysis, do not need an Ethical Data Sharing Training Certificate, but do need the other information above

Cooperative Research and Development Agreement (CRADA)

- Agreement between each System Provider (COLLABORATOR) and DHS S&T (SPONSOR)
    - Defines the roles and contributions of the COLLABORATOR and SPONSOR
    - Defines strict policy on the proper transfer and handling of 2022 Rally data
    - Provides the basis for involvement in 2022 Rally activities
    - Exempt from FOIA process

- Must be signed by Corporate Officer

- Submission instructions will be provided when the CRADA is emailed. Signed CRADA is due by **August 15, 2022**

- DHS S&T expects to sign by **August 19, 2022**

System Safety

- Acquisition systems installed in the MdTF are required to be independently certified "safe to use"

- Safe to use includes (but is not limited to):
  - Physical contact
    - Guarded and non-exposed electrical components and wiring
    - No sharp edges
  - Non-physical contact
    - Safe illumination wavelengths

- Potential resources
  - UL Certification: https://services.ul.com/service/safety-certification/
  - CE Marking

- Once your system has been certified safe, please send the certification to peoplescreening@hq.dhs.gov and rally@mdtf.org by **August 15, 2022**

Science and Technology

Acquisition System API Integration

- Acquisition system providers are required to demonstrate that they have integrated their system with the MdTF acquisition system API
  - http://api.mdtf.org
  - http://github.mdtf.org

- Acquisition systems demonstrate API integration by submitting an image using the endpoint(s) appropriate to the system

- Email rally@mdtf.org once an image has been submitted and the MdTF will verify image submission. This is a prerequisite for final acceptance
  - Deadline: **August 15, 2022**

Science and
Technology

Acquisition System Delivery

- Acquisition system providers are responsible for getting their systems to the MdTF
  - Vendors are responsible for ALL international shipment logistics, including US Customs arrangements
  - Acquisition system shipments will be received and staged in the assigned station 1 week prior to installation – any shipments received before **September 5, 2022** will be rejected

- Address:

  Maryland Test Facility
  1221 Caraway Court, Suite 1070
  Upper Marlboro, MD 20774
  Attn: Rebecca Duncan (301) 909 - 9265

- Please label all packages with your company name and appropriate POC

- Shipping Information
  - Arrange for return shipping to be completed no later than **September 30, 2022**

Science and Technology

Matching System Delivery (mdtf.org)

- Delivery of the matching system is the responsibility of Matching System Providers
  - Matching system Docker images will be uploaded to http://mdtf.org

- Each Slack Channel Staff must contact rally@mdtf.org to request access to the upload portal and a Slack channel for technical questions
  - Originating e-mail must be listed in a prior e-mail from the technical POC
  - Use the subject line: **"<Company Name> 2022 Rally Matching Account Request"**

- Test and packaging scripts are available at http://github.mdtf.org
  - DHS has sole discretion in disqualification if the algorithm requires an *excessive effort* to achieve functionality

- An initial Docker image must be received by **August 15, 2022** to demonstrate API implementation before final acceptance

- The last Docker image received by COB of **September 14, 2022** will be the version tested in the 2022 Rally

During Scenario Testing

Code of Conduct Acknowledgement

- The 2022 Rally Code of Conduct outlines professional and ethical behaviors that all company representatives must adhere to while at the MdTF

- All company representatives onsite will sign the Code of Conduct upon arrival at the MdTF
  - Violation(s) of the Code of Conduct may result in expulsion from the 2022 Rally

- A copy of the Code of Conduct will be sent to your Business POC in advance of the 2022 Rally for review

Science and Technology

Acquisition System Installation

- Acquisition system providers are responsible for getting their systems to the MdTF

- There will be multiple stations at the MdTF, each labelled with a letter
  - You will be assigned to one of these stations upon arrival

- Must be able to configure station name and IP address of the API endpoint

- There will only be ONE (1) day for system installation, **September 12, 2022**

2022 Rally Station Configuration

Acquisition Systems go here

Note: Test bay floor will not be green. Shape color is for illustrative purposes only.

Science and Technology

Acquisition System Installation

- After you have completed installation of your system within the MdTF, a staff member will validate the following:
    - **Space Limits: 6 feet wide x 8 feet long**
    - **Power: 5 amps max (single power strip will be provided)**
    - **Ethernet: LAN only**
  - That you adhere to the safety information you provided, and no risk is present for any users, including tripping hazards like cables on the floor, harmful illumination, and physical dangers (sharp edges, exposed wires, etc.)
  - That you can successfully acquire and send image data through the API to the MdTF infrastructure

Science and Technology

VIP Day

- VIP day is an opportunity for your organization to pitch your system to stakeholders from DHS, other federal and international government agencies, and airline/airport trade associations

- You will have ~5 minutes with each VIP group to demonstrate and promote your system

- You may also bring materials, such as promotional posters, to set up in your station
  - All promotional materials must fit within your station

- You may bring up to **three** personnel to the MdTF on VIP day, as long as you have provided the required information for those personnel to come to the MdTF during the 2022 Rally
  - Individuals attending VIP day may differ from the personnel who will be present on test days

- **Logistics are subject to change based on guidance related to the ongoing COVID-19 national emergency**

Science and Technology

Test Day Schedules

- There will be multiple test sessions during each test day
  - The morning session is planned to start at 8:30 AM
  - The afternoon session is planned to start at 1:00 PM

- We recommend that you arrive at the MdTF 45-minutes prior to the morning session to verify your equipment is operational, and to pick up your offsite badge
  - You should be available between the morning and afternoon session in the event your system breaks

- During the test you will not be allowed in the MdTF, you will be able to view transactions from your station using a device monitor provided at an offsite conference room

- **Logistics are subject to change based on guidance related to the ongoing COVID-19 national emergency**

Science and Technology

System Monitoring – Offsite Conference Room

- You will be able to monitor your system in a conference room at the Residence Inn by Marriott Largo Capital Beltway, which is within walking distance of the MdTF
  - Address: 1330 Caraway Court, Largo, MD 20774
  - Coffee and water will be provided in the conference room during the day

- On test days, you must pick up your badge at the MdTF _before_ you enter the hotel conference room
  - Without a badge, you will be refused entrance to the conference room and will not be provided an iPad to monitor your system

Science and Technology

System Monitoring – Tablet Usage

- On test days, you will be able to view transactions that occur at your system using one of our iPads
  - There will be a video of each transaction so you can see how volunteers interact with your system

- These iPads will be available <u>only</u> at the offsite conference room and must be returned at the end of day
  - Staff will also be available to assist you if you encounter any issues with the iPads

- Staff will announce which stations will be active during each test session, so you know when to actively monitor your iPad

Science and Technology

Intranet and Internet Connectivity

- There will be network drops for acquisition systems to send images to the MdTF API
  - This network **WILL NOT** have public internet access during the test and is simply meant to connect your system to the MdTF infrastructure

- During testing, all MdTF networks will be dedicated to Rally testing
  - Due to this, the MdTF will not be able to provide public internet access for personal devices
  - You are responsible for providing your own hotspot device should you require internet connectivity while at the MdTF

- The offsite conference room will have public internet access

Incident Reporting

- You will be able to perform maintenance on your system during the collection event

- Two types of maintenance will be allowed:
  - Human factors changes – During the **first two days of collection**, we will allow two modifications to your system that will improve the usability of your system (i.e., signage changes, changes to instructions, etc.)
  - Operational maintenance – If your system goes down, you will be able to perform the necessary maintenance to restore your system. Additionally, we are allowing system providers to pull logs at the end of each day. Please ensure the information your system is storing is within the terms of the CRADA

- To complete any maintenance, you will need to fill out an incident form using a web app

System Maintenance

- You will be able to perform *general* maintenance (e.g., system reboot) before each test session in the time window from 7:15 AM to 8:10 AM

- You will be able to pull logs from your system at the end of each test day from 4:45 PM – 5:30 PM

- Any type of maintenance must be completed when NO volunteers are in the test bay. Depending on how early the first session of each day ends, there may not be time between the first and second sessions
  - We recommend you consider not only the time the maintenance may take, but also allow for a 5-minute walk from the offsite conference room to the MdTF

Accommodations and Parking

- If you drive to the facility, you are required to park across from the facility <u>on test days</u>
  - Parking immediately outside the facility is reserved for volunteers

- There is a group-rate available at the Residence Inn, where the offsite conference room is located:
  - $134/night
  - If there is an issue, please contact LaVonne Snowden directly via phone (301-925-7806) or email (<u>lsnowden@thmc.biz</u>)

- Other hotels
  - Courtyard by Marriott Largo Capital Beltway (within walking distance)
  - DoubleTree by Hilton Hotel Largo (within a 5-minute drive)
  - WoodSpring Suite Washington DC East Arena Drive (within a 5-minute drive)
  - Holiday Inn Express & Suites I-95 Capital Beltway (within a 5-minute drive)
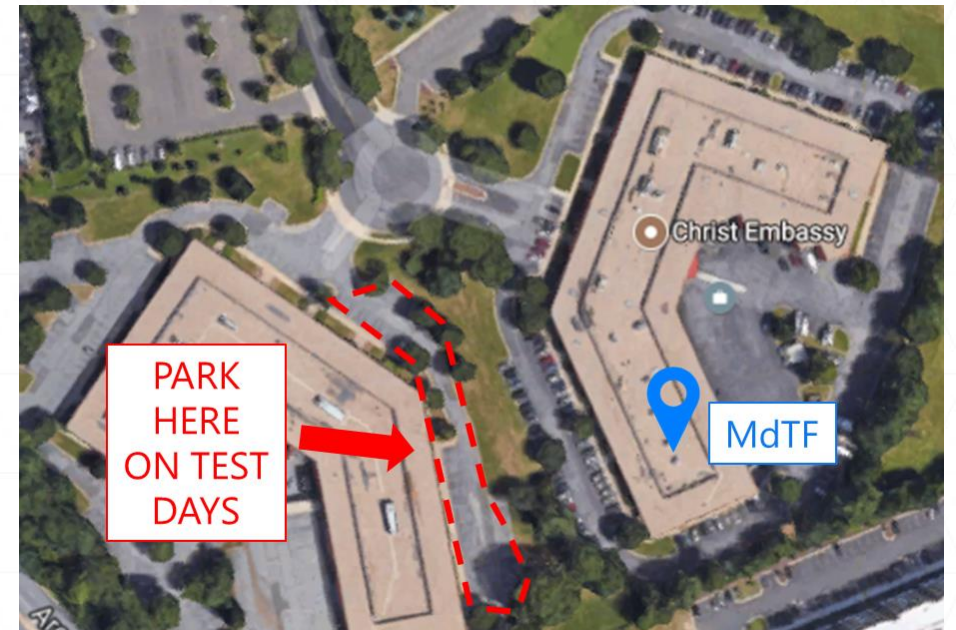
After Scenario Testing

Post-Testing – Acquisition Systems

- Equipment de-installation needs to begin as soon as the scenario testing concludes
  - Access to the facility after the conclusion of the Rally will be restricted

- The MdTF is not responsible for any packaging, marking, or shipping of equipment, so for those who require shipping, please coordinate shipping of your equipment from the MdTF no later than **September 30, 2022**

- DHS will provide data collected from your system back to you, per the CRADA
  - There will be a data validation period after the conclusion of Rally testing

- You are responsible for providing the media on which the data will be delivered
  - After Rally testing, mail a FIPS 140-2 encrypted device to the MdTF. Include a POC and return shipping address
  - Upon receipt of data, you are required to provide an email acknowledgement to peoplescreening@hq.dhs.gov

Science and Technology

Post-Testing – Matching Systems

- Analysis of matching systems will begin after the 2022 Rally scenario testing
  - Technical POCs should be available to provide support for matching systems for a 3-month period starting September 30, 2022

- DHS will provide data collected from your system back to you, per the CRADA
  - There will be a data validation period after the conclusion of Rally testing

- You are responsible for providing the media in which the data will be delivered
  - After Rally testing, mail a FIPS 140-2 encrypted device to the MdTF. Include a POC and return shipping address
  - Upon receipt of data, you are required to provide an email acknowledgement to peoplescreening@hq.dhs.gov

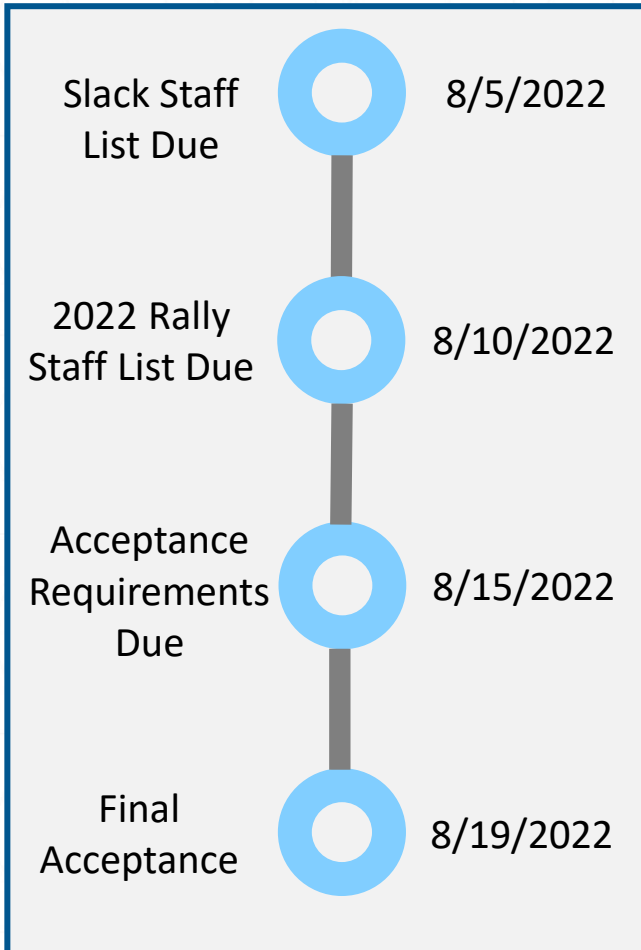# Reminders

Final Acceptance Checklist - Acquisition Systems

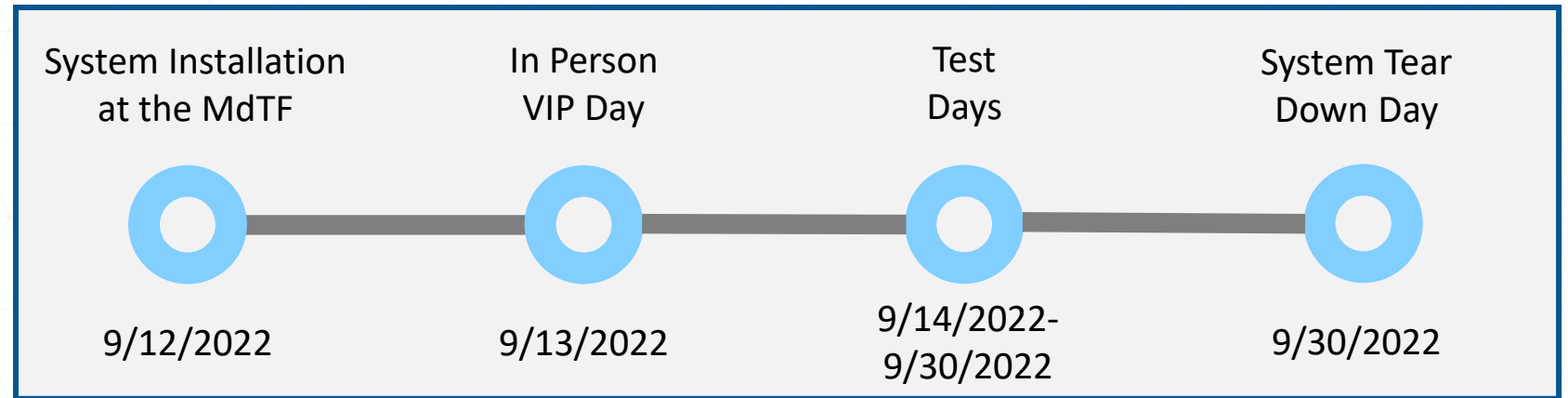| Item	Slide	Due Date
Slack staff list	6	August 5, 2022
Rally Staff list (onsite + analysis personnel)	8	August 10, 2022
Submit ethics certificates	10	August 15, 2022
Submit foreign national visitor forms	11	August 15, 2022
Submit CRADA	12	August 15, 2022
Submit system safety information	13	August 15, 2022
Demonstrate API Integration	14	August 15, 2022
First day acquisition system shipments will be accepted	15	September 5, 2022
Acquisition system installation day	19	September 12, 2022

Final Acceptance Checklist - Matching Systems

Item	Slide	Due Date
Slack staff list	6	August 5, 2022
Rally Staff list (analysis personnel)	7	August 10, 2022
Submit ethics certificates	10	August 15, 2022
Submit CRADA	12	August 15, 2022
Initial Docker Image	16	August 15, 2022
Final system submission	16	September 14, 2022

Timeline

Before Testing

Slack Staff List Due	8/5/2022
2022 Rally Staff List Due	8/10/2022
Acceptance Requirements Due	8/15/2022
Final Acceptance	8/19/2022

Acquisition System Test Logistics

System Installation at the MdTF	In Person VIP Day	Test Days	System Tear Down Day
9/12/2022	9/13/2022	9/14/2022- 9/30/2022	9/30/2022

Matching System Test Logistics

Initial Docker Image Due	Final Docker Image Due	Matching Testing Begins
8/15/2022	9/14/2022	10/3/2022

Questions & Answers

- Contact information
  - Questions about the CRADA: peoplescreening@hq.dhs.gov
  - Technical and logistics questions: rally@mdtf.org

- Visit our websites for additional information
  - To see additional work DHS S&T supports, visit www.dhs.gov/science-and-technology
  - Detailed application instructions will be available in a separate document on https://mdtf.org
  - To view additional information about this year and prior Rallies, visit https://mdtf.org

2022 Biometric Technology Rally at MdTF

Science and Technology